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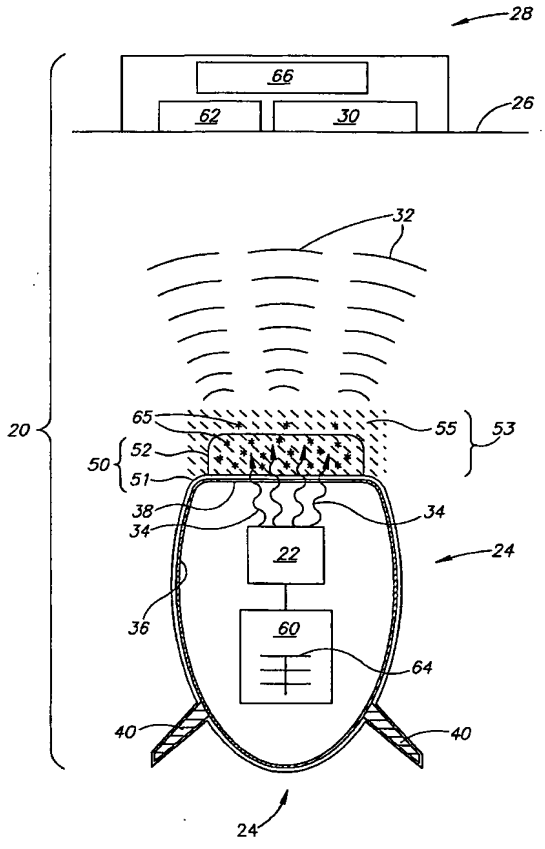
(54) Title: GLUCOMETER COMPRISING AN IMPLANTED LIGHT SOURCE



(57) Abstract: Apparatus for assaying an analyte in a body comprising: at least one light source implanted in the body controllable to illuminate a tissue region in the body with light at at least one wavelength that is absorbed by the analyte and as a result generates photoacoustic waves in the tissue region; at least one acoustic sensing transducer coupled to the body that receives acoustic energy from the photoacoustic waves and generates signals responsive thereto; and a processor that receives the signals and processes them to determine a concentration of the analyte in the illuminated tissue region.

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